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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,767	04/16/2004	Mingyan Liu	MSDI-343/PC273.22	8731
52196	7590	09/13/2007	EXAMINER	
KRIEG DEVault LLP ONE INDIANA SQUARE, SUITE 2800 INDIANAPOLIS, IN 46204-2709			PREBILIC, PAUL B	
		ART UNIT	PAPER NUMBER	
		3738		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/825,767	LIU ET AL.	
	Examiner	Art Unit	
	Paul B. Prebilic	3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 August 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 15-18,20 and 22-40 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 22-26 and 28-30 is/are allowed.
- 6) Claim(s) 15-18,20,27 and 31-40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>7/3/07</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

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The Examiner considered telephoning the Applicant with the following Examiner's Amendment, but decided that it was too involved to easily resolve within a few days. In other words, past experience with such extensive amendments suggests that they usually take more than a few days to resolve. Therefore, the Examiner has written out the requests to give the Applicant ample time to consider them. The following changes will put the application in condition for allowance:

- (1) The 3.73(b) statement or an assignment paper needs to make Medtronic the assignee so it is clear that Stephen M. Foster, a Medtronic VP, has authority to sign the 3.73(b) statement and the power of attorney.
- (2) Cancel claims 15-18, 20, and 31 to 40 without prejudice so that the inventions set forth therein can be prosecuted in a continuation or divisional application.
- (3) In claim 27, on line 1, change "cutting includes" to ---cutting further includes--- in order to make it clear that the steps are in addition to the steps set forth in base claim 22; see the specification paragraph "(g)", starting on page 12, line 29.
- (4) In claim 22, on line 2, after "bone plate", insert ---and into a spongy part--- in order to clarify what is meant by and opening.
- (5) In claim 22, on line 3, after "bone plate", insert ---and into a spongy part---.
- (6) In claim 22, after line 14, insert the new subparagraph ---(b) removing said tool from between said first and second vertebrae;--- in order to make it clear that the implant is not inserted while the cutting tool is between the vertebrae.
- (7) In claim 22, on old line 15, change "(b)" to ---(c)---.
- (8) An Abstract of the Disclosure needs to be provided.

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DETAILED ACTION

It is noted that the 3.73(b) statement filed August 21, 2007 does not indicate that Medtronic is the assignee so it is unclear why Vice President Stephen M. Foster, of Medtronic, signed it and the power of attorney. Appropriate clarification is respectfully requested.

Claim Objections

Claim 27 is objected to because of the following informalities:

On line 1 of claim 27, the language "cutting includes" makes it unclear whether the steps recited are additional steps or replacement steps of those recited in base claim 22. The Examiner suggests inserting "further" before "includes" in order to overcome this objection. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On lines 4-5 of claim 33, the height limitations contradict each other so it is unclear which height is supposed to be greater. The Examiner will interpret this language the same as if it said that the third and second heights are unequal.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-17, 20, 31-33, 35, 38, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Steffee (EP 0646366). Steffee anticipates the claim language where:

- the proximal handle is the handle (84) of Steffee
- the shaft as claimed is the shaft (118)
- the first non-cutting portion as claimed is the small diameter portion (110)
- the cutting portion as claimed is the spinal implant (10)
- the second non-cutting portion as claimed is the extension (136); see

Figures 1 to 12 and column 2, line 35 et seq.

With regard to claim 15, the distal and proximal directions are not defined such that they can be any direction; a distal direction, from the cutting portion, could be a direction normal to the faces (20) or (22); see Figure 10. Alternatively, even if distal is interpreted as being a direction away from the handle end, the extension (136) projects distally from the first and second teeth of the cutting portion; see Figure 9.

With regard to claim 16, the pair of stops corresponds to the top half and bottom half of the end (104), respectively, that could bear against the corresponding vertebrae proximate thereto.

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With regard to claim 20, the cutting as claimed is bone when the teeth cut into the vertebra upon rotation thereof.

With regard to claim 31, the distal head as claimed is the clamp (86) of Steffee that is clearly along the longitudinal axis. The distal and proximal directions are not defined such that they can be any direction; a distal direction, from the cutting portion, could be a direction normal to the faces (20) or (22); see Figure 10. Alternatively, even if distal is interpreted as being a direction away from the handle end, the extension (136) projects distally from the first and second teeth of the cutting portion; see Figure 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 34, 37, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffee (EP 0646366) in view of Brantigan (US 5,425,772). Steffee meets the claim language as explained in the Section 102 rejection *supra* but fails to disclose a trapezoidally shaped implant or cutting portion as claimed. However, Brantigan teaches that it was known to use trapezoidally shaped implants in the same location within the art; see Figure 10 and the front page of the patent. Therefore, it is the Examiner's position that it would have been obvious to utilize a trapezoidally shaped implant with Steffee's tool for the same reasons that Brantigan utilizes the same or to better match and repair the defect site.

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Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steffee (EP 0646366) in view of Kohrs et al (US 5,609,636). Steffee meets the claim language except for the use of oblique angled teeth as claimed. However, Kohrs teaches that it was known to utilize obliquely angled teeth in similar implants; see Figures 18 and 19. Therefore, it is the Examiner's position that it would have been obvious to utilize oblique teeth on the implant of Kohrs for the same reasons that Kohrs utilizes the same or in order to enable insertion and removal by the twisting motion of a screw.

Allowable Subject Matter

Claims 22 to 26 and 28-30 are allowed over the prior art of record.

Response to Arguments

Applicant's arguments filed July 3, 2007 have been fully considered but they are not persuasive. With regard to the arguments that claims 15 and 31 distinguish from Steffee because of the location of the second non-cutting portion or head, the Examiner has modified the rejection to explain why these limitations are still met by Steffee. The rationale used therein is incorporated herein as the reasoning behind the Examiner's position.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Applicant should specifically point out the support for any amendments made to the disclosure, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 USC 102 or 35 USC 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is respectfully requested to provide a list of all copending applications that set forth similar subject matter to the present claims. A copy of such copending claims is respectfully requested in response to this Office action if the application is not stored in image format (i.e. the IFW system) or published.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Paul B. Prebilic whose telephone number is (571) 272-4758. He can normally be reached on 6:30-5:00 M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Paul Prebilic/
Paul Prebilic
Primary Examiner
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